

REMARKS

Claims 1-6 and 8-42 are pending in the present application, claim 7 having been cancelled by the previous amendment submitted on April 15, 2002. In that previous amendment, independent claims 1 and 34 were amended to incorporate the subject matter of former dependent claim 7 (now cancelled).

In the August 13, 2002 Office Action, made final, claims 12, 15-19 and 23 were allowed. Claim 30 was indicated as being allowable if rewritten in independent form including the limitations of its base claim and any intervening claims. Claims 1, 3-6, 8-11, 13, 14, 20-22, 33, 34 and 40-42 were again rejected under 35 U.S.C. §102(a) as being anticipated by Narayanan et al. U.S. Patent No. 5,945,231. Claims 1-3, 24, 25, 28 and 31-42 were again rejected under 35 U.S.C. §102(a) as being anticipated by Narayanan et al. U.S. Patent No. 6,171,721. Claims 26, 27 and 29 were again rejected under 35 U.S.C. §103(a) for obviousness in view of the Narayanan '721 patent.

Request For Withdrawal Of Finality Of Rejection

Each of independent claims 1 and 34 was amended in the applicants' previous amendment to incorporate the limitations of former dependent claim 7 (now cancelled). Nevertheless, claims 1 and 34, as well as claims 3-6, 8-11, 13, 14, 20-22, 33, 34 and

40-42 dependent thereon, were rejected again on the same novelty/obviousness grounds, previously set forth in the first Office Action dated January 15, 2002, based upon the Narayanan '231 and '721 patents. Since former claim 7 had not been previously rejected in view of the Narayanan '721 patent, applicants had urged, in the Remarks accompanying the previous submission, that the amended claims, which now include the limitations of former claim 7, were patentable over the Narayanan '721 patent. The August 13, 2002 Office Action, made final, did not address any of these amendments or arguments. With no rejection of record as to former claim 7, and no rationale of record to support the rejection of amended claims 1 and 34, which include the limitations of former claim 7, the rejections should, at the very least, be set forth in a non-final action, or alternatively (and as set forth below), be withdrawn altogether.

**Rejection of Claims 1-6, 8-11, 13, 14, 20-22, 24-29 and 31-42
under 35 U.S.C. §§102(a) and 103(a) in view of
the Narayanan '231 and '721 Patents**

As to the final rejection of claims 1-6, 8-11, 13, 14, 20-22, 24-29 and 31-42 on novelty/obviousness grounds in view of the Narayanan patents, applicants submit the following:

- (1) The Narayanan '231 patent is directed exclusively to liquid fuel based, liquid feed fuel cells (see

abstract, claims and FIG. 1 (in which a methanol/water fuel, not hydrogen, is disclosed). In support of the final rejection, the Office Action cited the Narayanan '231 patent at column 12, lines 10-30, but this text refers only to the air electrode (that is, the cathode), not the anode, so hydrogen fuel is necessarily and inherently not present there. The assertion on page 7 of the August 13, 2002 Office Action that Narayanan's fuel cell would meet the applicants' claim(s) if it were "capable of performing the intended use" is the application of a legally impermissible "obvious to try" standard (see *In re O'Farrell*, 853 F.2d 894, 7 USPQ2d 1673 (Fed. Cir. 1988)). Absent any disclosure or suggestion that Narayanan's electrode is an anode that includes a first catalyst composition for electrochemically oxidizing a fuel and a second catalyst composition for evolving oxygen from water, the Narayanan '231 patent cannot anticipate or render obvious any of the finally rejected claims, particularly claim 33 in which the fuel stream is defined as comprising gaseous hydrogen.

- (2) The Narayanan '231 patent nowhere discloses or suggests an anode having two different catalyst

compositions disposed therein in which the second catalyst composition is a metal oxide, as recited in each of the finally rejected claims. Thus, even if the teachings of the Narayanan '231 patent could somehow be considered applicable to anodes, Narayanan's disclosed catalysts cannot anticipate or render obvious the rejected claims. The passage at column 10, lines 63-68 of the Narayanan '231 patent, which was cited in the support of the final rejection, describes each of Narayanan's Pt-Ru and Pt-RuO₂ compositions as being an alloy (that is, a single composition) and not a combination of two or more catalyst compositions, as recited in each of the rejected claims. In this regard, Narayanan's Pt-RuO₂-zeolite/Pt-RuO₂-ZrO₂ is a single catalyst composition (Pt and RuO₂ on a zeolite or zirconia support), not two different catalyst compositions. Absent any disclosure or suggestion of an anode that includes a first catalyst composition for electrochemically oxidizing a fuel and a second catalyst composition for evolving oxygen from water, the Narayanan '231 patent cannot anticipate or render obvious any of the finally rejected claims.

- (3) In further support of the final rejection, the Office Action cited the Narayanan '231 patent at column 5, lines 65-67, which states:

Each catalyst is supported by an electrically conductive carbon support.

In fact, the carbon support described in the above-quoted passage is a carbon paper (a "backing layer"), and not a particulate carbon support, as required by each of claims 24, 26 and 28. Similarly, the metal catalysts disclosed in the Narayanan '721 patent are not deposited on particulate supports, and the Narayanan '721 patent nowhere discloses or suggests an anode comprising two different catalyst compositions in which the second is a metal oxide.

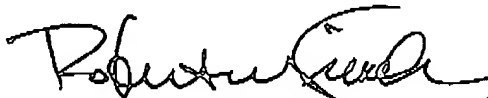
- (4) The allowance of claims 12, 15-19 and 23 necessarily renders claims 13 and 14 allowable as well. In this regard, the Narayanan '231 patent does not disclose or suggest solid solutions of $\text{RuO}_x/\text{IrO}_x$ and valve metal oxides, as recited in claims 13 and 14. In Narayanan's Pt- RuO_2 - ZrO_2 catalyst, the RuO_2 is deposited on the surface of the zirconia - there is no solid solution.

* * * * *

In view of the foregoing amendments and remarks, applicants submit that the finality of the rejection of claims 1-6, 8-11, 13, 14, 20-22, 24-29 and 31-42 should be withdrawn and, moreover, that those claims are allowable, in addition to claims 12, 15-19 and 23 already allowed and claim 30 already indicated as being allowable. Applicants also submit that the present submission should be entered because it requires no further searching and/or substantial consideration and, in any event, places the record for this application in better condition for appeal, if necessary. The Examiner is invited to telephone the applicants' undersigned attorney at (312) 775-8202 if any unresolved matters remain.

Please charge any fees incurred in connection with this submission to Deposit Account No. 13-0017.

Respectfully submitted,



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Dated: October 15, 2002

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